

COMPUTER PREPARES CLASSIFIED ADS

A BRIEF SUMMARY OF THE GE-225 AND THE ARIZONA JOURNAL

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by

General Electric Company

Want to buy, sell or trade? Just tell the computer.

Computers have been used to select proper marriage partners, predict crimes, name new products, and for a lot of less glamorous but also useful applications. Now they are getting into the buy and sell business. At least the General Electric 225 has that distinction.

In Phoenix, Arizona, for example, the nation's newest metropolitan daily newspaper began publication February 14, 1962. A cold-type offset publication, the Arizona Journal boasts many revolutionary concepts in producing a seven-days-a-week morning newspaper. Outstanding among the pioneering techniques is the use of the GE-225 computer to handle preparation and billing of classified advertising pages.

Essentially, here is how a classified ad is processed under Arizona Journal's computerized system:

The ad is received--let us say over the telephone--by a classified ad sales person. She records the ad, listing such information as publication dates, advertiser's name and address, and other significant information about him. If the advertiser is a regular credit customer, she records his account number rather than his name and address, so that his account may be properly debited for this new ad. She also selects a classification for the ad, and a key-word which will be used for alphabetizing the ad within classification.

Each ad-taker has serially numbered forms so that each ad will be assigned a unique identification number for later reference. Several carbon copies are made for various record-keeping functions. The copy that interests the GE-225 proceeds to an ad-censor's desk where the ad itself is checked and the advertiser's credit is approved.

Upon leaving the censor's desk, the ad, together with the other information appearing on the ad-taker's form, including the ad number, is typewritten on a keyboard unit of an ATF Typesetter which produces a punched paper tape as well as a hard copy of the ad and the other pertinent business data.

At this point, the ads are represented by various separate lengths of perforated tape, each length containing all pertinent information for each individual classified ad. The ads, incidentally, may be typed on different key board units.

The Typesetter tape is clipped to the hard copy and original hand-written form and sent to a proofreading operation where all information is checked for correct typing. One advantage of this system over conventional procedures lies in the fact that proofreading occurs here rather than after final typesetting. The ads are received and typed all during the day, which permits the proofreading staff to spread this work over the day rather than concentrating it into the short period between the time the type is set and the time the page must be complete for printing. Also, since the typesetting is photographic, correction of the paper tape is much simpler than correction of the film strip containing the final copy.

Following approval of hard copy, the paper tape is sent to a collection point at the newspaper office for later transmission to the GE-225 at a General Electric Information Processing Center (IPC). Transmission from the Arizona Journal to the IPC--some 15 miles away-- is accomplished over ordinary voice-channels by Data Speed tape reperforator and Dataphone. Transmission occurs intermittently throughout the day, at the rate of 1,000 words per minute.

Information is received at the IPC on reels. Thus, in effect, all ad tapes are assembled on full reels, with the full reels read for entry into the computer.

The collection of new ads in these full reels of paper tape now enters the GE-225 computer, where the ads are sorted to classification, key-word, ad-number-order and written onto magnetic tape. They are then merged with the master magnetic tape file containing ads (and business information) entered in preceding days, creating a new master tape.

As each ad is about to be written onto the new master tape, it is examined by the computer to determine if it is to be published in today's newspaper. If so, then the ad copy (not the business information) is automatically punched into an output paper tape. If not, this operation is eliminated.

In addition, the ad is examined by the GE-225 to determine whether its scheduled publication has been completed. If so, the computer prepares and prints a bill ready for mailing to the advertiser. A "stub" is also prepared for use by the newspaper to control its collections by means of a simple open-item procedure.

When the publication schedule is complete, the ad is not dropped from the master magnetic tape. Rather, it is held for a defined period during which it may be rescheduled by referring to its classification, key-work and ad number. Of course, corrections, changes in schedule, copy or other information can also be made by the same reference.

Should the advertiser have a regular account, the billing operation is omitted. Instead, information regarding charges to the customer is written on a magnetic tape each day that the ad is punched into paper tape by the GE-225. This information accumulates until today's last ad has been punched. Additional information about the regular accounts is then entered (again via punched paper tape.) This additional information includes cash receipts advice, display advertising advice, and other charges or corrections to the regular advertisers' accounts. This information is then sorted to account number and used to prepare daily invoices, monthly statements to advertisers listing their charges in detail for the preceding month, and a monthly accounts-receivable register which takes the place of the more conventional ledger card file.

Provisions are made for early termination of ads and non-standard charges to customers, as well as corrections or changes in any portion of the business information; or the advertising copy, as it is to appear in the newspaper.

The output punched-paper-tape containing classification headings supplied by the computer and advertisements for publication in today's paper will, as has been mentioned, be the medium of direct entry to the Typesetter photo-unit which will compose the copy onto photographic film in positive form. Each classification is separated by easily recognizable characters in the paper tape, so that more than one Typesetter can be put into action without danger of separating parts of the same ad.

It is important to note that both the business information and the advertiser's copy have been proofread before transmission to the IPC. Thus little or no correction will be required prior to making printing plates from the photographic film positive as produced by the typesetter. Since this information is being prepared throughout the day, an extremely time-critical operation has been shifted to a non-critical time.

There are many other applications for such techniques in other publishing and printing companies, and the General Electric Computer Department welcomes the opportunity to demonstrate the capabilities of computer services and the GE-225 at Information Processing Centers around the country.

Centers are now in operation in:
Chicago, Illinois - 120 S. LaSalle Street - phone 782-5061
Schenectady, N.Y. - WRGB Building - 60 Washington Ave. - Phone 374-2211
Washington, D.C. - 7800 Wisconsin Avenue, Bethesda, Md. - Phone 654-9360
Phoenix, Ariz. - 13430 N. Black Canyon Highway - phone 264-3741

Present plans call for opening of new centers in the Fall of 1962 at Dallas, Texas, Sunnyvale, California, and New York City.